

Environmental Protection Agency

§ 75.33

concentration monitor, the flow monitor, the NO_x continuous emission monitoring system as follows:

(1) Prior to completion of 8,760 unit operating hours following initial cer-

tification, the owner or operator shall, for the purpose of applying the standard missing data procedures of § 75.33, use Equation 8 to calculate, hourly, percent monitor data availability.

$$\text{Percent monitor data availability} = \frac{\text{Total unit operating hours for which quality-assured data were recorded since certification}}{\text{Total unit operating hours since certification}} \times 100 \quad (\text{Eq. 8})$$

(2) Upon completion of 8,760 unit operating hours following initial certification (or, for a unit with less than 8,760 unit operating hours three years (26,280 clock hours) after initial certification, upon completion of three years (26,280 clock hours) following initial

certification) and thereafter, the owner or operator shall, for the purpose of applying the standard missing data procedures of § 75.33, use Equation 9 to calculate, hourly, percent monitor data availability.

$$\text{Percent monitor data availability} = \frac{\text{Total unit operating hours for which quality-assured data were recorded during previous 8,760 unit operating hours}}{8,760} \times 100 \quad (\text{Eq. 9})$$

(3) The owner or operator shall include all unit operating hours, and all monitor operating hours for which quality-assured data were recorded by a certified primary monitor; a certified redundant or non-redundant backup monitor or a reference method for that unit; or by an approved alternative monitoring system under subpart E of this part when calculating percent monitor data availability using Equation 8 or 9. No hours from more than three years (26,280 clock hours) earlier shall be used in Equation 9. For a unit that has accumulated less than 8,760 unit operating hours in the previous three years (26,280 clock hours), replace the words "during previous 8,760 unit operating hours" in Equation 9 with "in the previous three years" and replace "8,760" with "total unit operating hours in the previous three years." The owner or operator of a unit with an SO₂ monitoring system shall, when SO₂ emissions are determined in accordance with § 75.11(e)(1) or (e)(2), exclude

hours in which a unit combusts only natural gas (or gaseous fuel with a sulfur content no greater than natural gas) from calculations of percent monitor data availability for SO₂ pollutant concentration monitors, as provided in § 75.30(d).

(b) The monitor data availability need not be calculated during the missing data period. The owner or operator shall record the percent monitor data availability for the last hour of each missing data period as the monitor availability used to implement the missing data substitution procedures.

[58 FR 3701, Jan. 11, 1993, as amended at 60 FR 26529, 26567, May 17, 1995; 61 FR 59160, Nov. 20, 1996]

§ 75.33 Standard missing data procedures.

(a) Following initial certification and upon completion of the first 720 quality-assured monitor operating hours of the SO₂ pollutant concentration monitor or the first 2,160 quality-assured

monitor operating hours of the flow monitor or NO_x continuous emission monitoring system, the owner or operator shall provide substitute data required under this subpart according to the procedures in paragraphs (b) and (c) of this section and depicted in Table 1

(SO_x) and Table 2 (NO_x, flow). The owner or operator of a unit shall substitute for missing data using only quality-assured monitor operating hours of data from the three years (26,280 clock hours) prior to the date and time of the missing data period.

TABLE 1.—MISSING DATA PROCEDURE FOR SO₂ CEMS

Trigger conditions		Calculation routines	
Availability (percent)	Duration (N) of outage (hours)	Method	Lookback period
95 or more	N≤24	Average	HB/HA.
	N>24	Max. of average	HB/HA.
		Max. of 90th percentile	720 operating hours*.
90 or more, but below 95	N≤8	Average	HB/HA.
	N>8	Max. of average	HB/HA.
		Max. of 95th percentile	720 operating hours*.
Below 90	N >0	Maximum value ¹	720 operating hours*.

HB/HA=hour before and hour after the outage.

*=Quality-assured, monitor operating hours.

¹Where unit with add-on emission controls can demonstrate that the controls are operating properly, as provided in § 75.34, the unit may, upon approval, use the maximum controlled emission rate from the previous 720 operating hours.

TABLE 2.—MISSING DATA PROCEDURE FOR NO_x AND FLOW CEMS

Trigger conditions		Calculation routines		
Availability (percent)	Duration (N) of outage (hours)	Method	Lookback period	Load ranges
95 or more	N ≤ 24	Average	2160 operating hours*	Yes.
	N > 24	Max of average	HB/HA	No.
		Max of 90th percentile	2160 operating hours*	Yes.
90 or more, but below 95	N ≤ 8	Average	2160 operating hours*	Yes.
	N > 8	Max of Average	HB/HA	No.
		Max of 95th percentile	2160 operating hours*	Yes.
Below 90	N > 0	Maximum Value ¹	2160 operating hours*	Yes.

HB/HA = hour before and hour after the outage.

* = Quality-assured, monitor operating hours.

¹Where unit with add-on emission controls can demonstrate that the controls are operating properly, as provided in § 75.34, the unit may, upon approval, use the maximum controlled emission rate from the previous 720 operating hours.

(b) *SO₂ concentration data.* For each hour of missing SO₂ concentration data,

(1) Whenever the monitor data availability is equal to or greater than 95.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:

(i) For a missing data period less than or equal to 24 hours, substitute the average of the hourly SO₂ concentrations recorded by an SO₂ pollutant concentration monitor for the hour before and the hour after the missing data period.

(ii) For a missing data period greater than 24 hours, substitute the greater of:

(A) The 90th percentile hourly SO₂ concentration recorded by an SO₂ pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or

(B) The average of the hourly SO₂ concentrations recorded by an SO₂ pollutant concentration monitor for the hour before and the hour after the missing data period.

(2) Whenever the monitor data availability is at least 90.0 percent but less than 95.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:

(i) For a missing data period of less than or equal to 8 hours, substitute the

average of the hourly SO₂ concentrations recorded by an SO₂ pollutant concentration monitor for the hour before and the hour after the missing data period.

(ii) For a missing data period of more than 8 hours, substitute the greater of:

(A) the 95th percentile hourly SO₂ concentration recorded by an SO₂ pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or

(B) The average of the hourly SO₂ concentrations recorded by an SO₂ pollutant concentration monitor for the hour before and the hour after the missing data period.

(3) Whenever the monitor data availability is less than 90.0 percent, the owner or operator shall substitute for each hour of each missing data period the maximum hourly SO₂ concentration recorded by an SO₂ pollutant concentration monitor during the previous 720 quality-assured monitor operating hours.

(c) *Volumetric flow and NO_x emission rate data.* For each hour of missing volumetric flow or NO_x emission rate data:

(1) Whenever the monitor or continuous emission monitoring system data availability is equal to or greater than 95.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:

(i) For a missing data period less than or equal to 24 hours, substitute the average hourly flow or NO_x emission rate recorded by a flow monitor or NO_x continuous emission monitoring system during the previous 2,160 quality-assured monitor operating hours at the corresponding unit load range recorded for each missing hour, as determined using the procedure in appendix C to this part.

(ii) For a missing data period greater than 24 hours, substitute the greater of:

(A) The 90th percentile hourly flow or NO_x emission rate recorded by a flow monitor or NO_x continuous emission monitoring system at the corresponding unit load range recorded for each missing hour during the previous 2,160

quality-assured monitor operating hours, as determined using the procedure in appendix C to this part; or

(B) The average of the hourly flow or NO_x emission rate recorded by a flow monitor or NO_x continuous emission monitoring system for the hour before and the hour after the missing data period.

(2) Whenever the monitor or continuous emission monitoring system data availability is at least 90.0 percent but less than 95.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:

(i) For a missing data period of less than or equal to 8 hours, substitute the average hourly flow or NO_x emission rate recorded by a flow monitor or NO_x continuous emission monitoring system at the corresponding unit load range recorded for the missing hour during the previous 2,160 quality-assured monitor operating hours, as determined using the procedure in appendix C to this part.

(ii) For a missing data period greater than 8 hours, substitute the greater of:

(A) The 95th percentile hourly flow or NO_x emission rate recorded by a flow monitor or NO_x continuous emission monitoring system at the corresponding unit load range recorded for the missing hour during the previous 2,160 quality-assured monitor operating hours, as determined using the procedure in appendix C to this part; or

(B) The average of the hourly flow or NO_x emission rate recorded by a flow monitor or NO_x continuous emission monitoring system for the hour before and the hour after the missing data period.

(3) Whenever the monitor data availability is less than 90.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period by substituting the maximum hourly flow or NO_x emission rate recorded by the flow monitor or NO_x continuous emission monitoring system at the corresponding unit load range recorded for the missing hour

during the previous 2,160 quality-assured monitor operating hours, as determined using the procedure in section 2 of appendix C to this part.

(4) Whenever no prior quality-assured flow or NO_x emission rate data exist for the corresponding load range, the owner or operator shall substitute the maximum hourly flow rate or the maximum hourly NO_x emission rate at the next higher level load range for which quality-assured data is available for each hour of missing data.

(5) Whenever no prior quality-assured flow or NO_x emission rate data exist for either the corresponding load range or a higher load range, the owner or operator shall substitute the maximum potential NO_x emission rate or the maximum potential flow rate, as defined in section 2.1 of appendix A of this part.

[58 FR 3701, Jan. 11, 1993, as amended at 60 FR 26529, May 17, 1995; 61 FR 25582, May 22, 1996]

§ 75.34 Units with add-on emission controls.

(a) The owner or operator of an affected unit equipped with add-on SO₂ and/or NO_x emission controls shall use one of the following options for each hour in which quality-assured data from the outlet SO₂ and/or NO_x monitoring system(s) are not obtained:

(1) The owner or operator may use the missing data substitution procedures as specified for all affected units in §§ 75.31 through 75.33 to substitute data for each hour in which the add-on emission controls are operating within the proper parametric ranges specified in the quality assurance/quality control program for the unit, required by section 1 in appendix B of this part. The designated representative shall document in the quality assurance/quality control program the ranges of the add-on emission control operating parameters that indicate proper operation of the controls. The owner or operator shall, for each missing data period, record data to verify the proper operation of the SO₂ or NO_x add-on emission controls during each hour, as described in paragraph (d) of this section. In addition, under § 75.64(c), the designated representative shall submit a certified verification of the proper

operation of the SO₂ or NO_x add-on emission control for each missing data period at the end of each quarter.

(2) The designated representative may petition the Administrator under § 75.66 to replace the maximum recorded value in the last 720 quality-assured monitor operating hours with a value corresponding to the maximum controlled emission rate (an emission rate recorded when the add-on emission controls were operating) recorded during the last 720 quality-assured monitor operating hours. For such a petition, the designated representative must demonstrate that the following conditions are met: the monitor data availability, calculated in accordance with § 75.32, for the affected unit is below 90.0 percent and parametric data establish that the add-on emission controls were operating properly (i.e., within the range of operating parameters provided in the quality assurance/quality control program) during the time period under petition.

(3) The designated representative may petition the Administrator under § 75.66 for approval of site-specific parametric monitoring procedure(s) for calculating substitute data for missing SO₂ pollutant concentration and NO_x emission rate data in accordance with the requirements of paragraphs (b) and (c) of this section and appendix C of this part. The owner or operator shall record the data required in appendix C of this part, pursuant to § 75.55(b).

(b) For an affected unit equipped with add-on SO₂ emission controls, the designated representative may petition the Administrator to approve a parametric monitoring procedure, as described in appendix C of this part, for calculating substitute SO₂ concentration data for missing data periods. The owner or operator shall use the procedures in §§ 75.31, 75.33, or 75.34(a) for providing substitute data for missing SO₂ concentration data unless a parametric monitoring procedure has been approved by the Administrator.

(1) Where the monitor data availability is 90.0 percent or more for an outlet SO₂ pollutant concentration monitor, the owner or operator may calculate substitute data using an approved parametric monitoring procedure.